# **RT5P141C**

Transistor With Resistor For Switching Application Silicon PNP Epitaxial Type

## **DESCRIPTION**

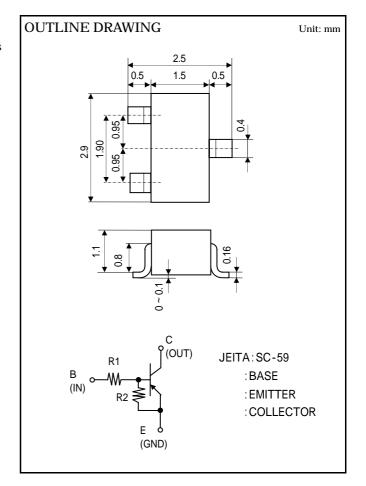
RT5P141C is a one chip transistor with built-in bias resistor.

### **FEATURE**

 $Built-in\ bias\ resistor\quad (R_1{=}10k\quad ,\ R_2{=}10k\quad )$  High collector current  $\ (Ic{=}{-}0.5A)$  Mini package for easy mounting

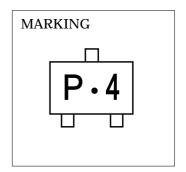
### **APPLICATION**

Inverted circuit, Switching circuit, Interface circuit, Driver circuit



# MAXIMUM RATING (Ta=25 )

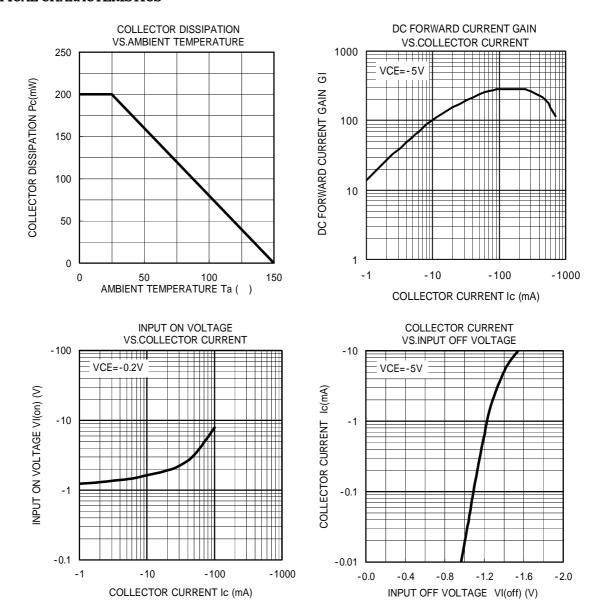
SYMBOL	PARAMETER	RATING		UNIT	
$V_{CBO}$	Collector to Base voltage	-50		V	
V <sub>EBO</sub>	Emitter to Base voltage	-40	10	V	
V <sub>CEO</sub>	Collector to Emitter voltage	-50		V	
$I_{\rm C}$	Collector current	-500		mA	
Pc	Collector dissipation(Ta=25 )	200		mW	
Tj	Junction temperature	150			
$T_{stg}$	Storage temperature	-55 ~ + 150			



## ELECTRICAL CHARACTERISTICS (Ta=25)

SYMBOL	PARAMETER	TEST CONDITION	LIMIT			UNIT
			MIN	TYP	MAX	UNII
V <sub>I(on)</sub>	Input on voltage	$V_{\text{CE}}$ =-0.3V , $I_{\text{C}}$ =-10mA			-3	V
V <sub>I(off)</sub>	Input off voltage	$V_{\text{CE}}\text{=-}5V$ , $I_{\text{C}}\text{=-}100~\mu~A$	-0.5			V
$V_{\text{CE(sat)}}$	C to E saturation voltage	$I_{C}$ =-50mA , $I_{B}$ =-2.5mA		-0.1	-0.3	V
$I_{BE}$	B to E current	V <sub>EB</sub> =-5V			-0.88	mA
$I_{CES}$	Collector cut off current	$V_{\text{CE}}$ =-50V , $V_{\text{BE}}$ =-0V			-0.5	μA
$G_{I}$	DC forward current gain	$V_{\text{CE}}$ =-5V , $I_{\text{E}}$ =-50mA	56			
$R_1$	Input resistor		7	10	13	k
R <sub>2</sub> /R <sub>1</sub>	Resistor ratio		0.8	1	1.2	
$\mathbf{f}_{\mathrm{T}}$	Gain band width product	$V_{\text{CE}}$ =-10V , $I_{\text{E}}$ =5mA , $f$ =100MHz		150		MHz

#### TYPICAL CHARACTERISTICS





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